

**REMARKS**

This communication is a full and timely response to the non-final Office Action dated August 12, 2004 (Paper No./Mail Date 5). By this communication, Applicant has amended claims 1-13.

Claim 1 has been amended to improve idiomatic English. Claims 2-13 have been amended to address formal issues. No new matter has been added.

Claims 1-13 are pending where claim 1 is independent.

**Rejection Under 35 U.S.C. §103**

Claims 1-3, 5-10, and 12 were rejected under 35 U.S.C. §103(a) as unpatentable over *McNelley et al.*, U.S. Patent No. 5,550,754 in view of *Takahashi et al.*, U.S. Patent No. 5,621,462 and *Fullam*, U.S. Patent No. 5,764,291. Applicant respectfully traverses this rejection.

Claim 1 recites a device for controlling an exposure of an electronic camera, said camera being mounted on an electronic apparatus having a display and the camera being capable of setting a photographing direction to at least a forward or a rearward direction of the electronic camera, said device comprising exposure detecting means for generating exposure detection information indicative of the average magnitude of said video signals of a photographed image based on video signals generated by the electronic camera; exposure adjusting means for adjusting the exposure of the electronic camera based on said exposure detection information generated by said exposure detecting means; and photographing direction detecting means for outputting a corresponding direction detection signal when the photographing direction of the electronic camera is set to the rearward direction, wherein the exposure detecting means logically divides one photographed image according to first and second patterns, and in the division by said first pattern, divides said photographed image into an upper area and a lower area to generate first exposure detection information relatively strongly reflecting the magnitude of said video signal corresponding to said lower area; and in the division by said second pattern, divides the photographed image into a central area and a peripheral area to generate second exposure detection information relatively strongly reflecting the magnitude of the video signal corresponding to said central area and, when said photographing direction detecting means outputs said direction detection signal, said exposure adjusting means adjusts the exposure of the electronic camera on the basis of said first exposure detection information, and when the photographing direction detecting means does not output a direction detection signal, the

exposure adjusting means adjusts the exposure of the electronic camera on the basis of said second exposure detection information.

In summary, the present invention is directed to an apparatus that enables a photographer to photograph himself by directing the camera head towards his person, and also enables the photographer to photograph an object or scenery by directing the camera head in the direction of the object or scenery. In this case, in order to attain a proper exposure in both cases, the direction of the camera head is detected, and based on this detection, exposure control is automatically performed.

*McNelley* discloses a technique in which the photographer may photograph himself by directing the camera head toward his person, and in addition photograph an object or scenery by directing the camera head in the direction of the object or scenery. *McNelley*, however, is silent about performing an exposure control based on the direction of the camera head. The Office Action acknowledges that *McNelley* fails to disclose, teach, or suggest at least controlling an exposure of the electronic camera. Namely, *McNelley* fails to disclose, teach, or suggest at least when said photographing direction detecting means outputs said direction detection signal, said exposure adjusting means adjusts the exposure of the electronic camera based on said first exposure detection information, and when the photographing direction detecting means does not output a direction detection signal, the exposure adjusting means adjusts the exposure of the electronic camera based on said second exposure detection information. In addition, *McNelley* fails to disclose, teach, or suggest at least outputting a corresponding direction detection signal when the photographing direction of the electronic camera is set to the rearward direction. The Office Action alleges that *Takashi* remedies this deficiency.

*Takashi* discloses an image pickup device that processing a captured image by dividing the image into a plurality of areas. The device then determines the average value of a designated area of the image signal. Based upon the value the designated area exposure control is performed on that portion of the image signal. In this control process, the device estimates the luminance distribution in the image frame based on the illumination in the representative scene, sets the light metering area such that a large automatic exposure calculating coefficient is assigned to an area that provides effective information for the determination of the exposure.

*Takahashi*, however, fails to disclose, teach, or suggest at least when said photographing direction detecting means outputs said direction detection signal, said exposure adjusting means adjusts the exposure of the electronic camera based on said first exposure detection information,

and when the photographing direction detecting means does not output a direction detection signal, the exposure adjusting means adjusts the exposure of the electronic camera based on said second exposure detection information. In contrast, *Takashi* merely discloses that the exposure control is performed automatically based on the estimated luminance distribution in the image, and does not disclose, teach, or suggest that the direction in which the camera captures the image is a factor in exposure control. Thus, *Takahashi* fails to remedy the deficiencies of *McNelley*.

*Fullam* discloses a camera having an orientation sensor that outputs a left orientation or right orientation signal to indicate the orientation of the camera when an image is captured. The camera device uses measurement zones A, B, C, and D to perform exposure control. Based on the output orientation signal, the device determines where the measurement zones are located on the image, so that exposure control can be performed based on the location of the measurement zones. These measurement zones A, B, C, and D are always oriented such that a combination of two zones are associated with either the top or bottom of the image (Figs. 9A-9B; col. 7, lines 35-65).

*Fullam* fails to disclose, teach, or suggest that these measurement zones are patterns, or that in the division by said second pattern, the photographed image is divided into a central area and a peripheral area to generate second exposure detection information relatively strongly reflecting the magnitude of the video signal corresponding to said central area. In contrast, *Fullam* discloses that the photographed image is divided into a top and a bottom portion.

In summary, the combination of *McNelley* and *Takahashi* discloses an image pickup device that is capable of capturing an image of an object located in front of or behind the screen. Exposure control is performed automatically on this image by dividing the image into a plurality of areas, estimating the luminance distribution in the image based on an average value determined in a designated area, and adjusting the luminance value based on the estimation. *Fullam* discloses dividing a photographed image into measurement zones based on an orientation signal, so that exposure control can be performed based on the location of the measurement zones.

Contrary to the position expressed in the Office Action, there is no motivation to combine the teachings of *McNelley*, *Takahashi*, and *Fullam*. In particular, there is no evidence that the automatic exposure technique employed by *Takahashi* would be operable in a camera that can obtain pictures from various directions. In fact, *Fullam* teaches that such a combination is not desirable in that automatically-determined exposure and focus settings generated in the

prior art are non-optimal when a camera has been rotated relative to an image (col. 2, lines 15-17). Moreover, even if *McNelley* and *Takahashi* were combinable, which they are not, it appears unnecessary and redundant to integrate the teachings of *Fullam* into the resulting device. In addition to *Fullam* teaching away from the techniques described in *Takahashi*, *Fullam* discloses the same functions that are allegedly performed by the *McNelley-Takahashi* combination. For example, *Fullam* teaches a video camera capable of detecting the orientation of the camera and performing exposure control on a captured image. Thus, it would be unnecessary for one of ordinary skill to integrate *Fullam* into a device that apparently performs the same functions. With the exception of hindsight reasoning, there is no teaching or suggestion that would motivate one of ordinary skill to go from an automatic exposure control technique as taught in *Takahashi* to one based on an orientation signal as disclosed in *Fullam*. Applicant adds that the Office Action acknowledges that the teachings of *McNelley* and *Takahashi* either singly or combined fail to disclose, teach, or suggest every element recited in the claims. The Office Action has also acknowledged that *Fullam* taken individually does not disclose, teach, or suggest every element recited in the claims. Thus, because *Fullam* cannot be combined with the teachings of *McNelley* and *Takahashi*, a *prima facie* case for obviousness has not been established.

To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, obviousness “cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination.” *ACS Hosp. Sys. V. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

It is established law that one “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *Ecolochem, Inc. v. Southern California Edison Company*, page 23, September 7, 2000 (Fed. Cir.) (citing *In re Fine*, 837 F.2d 1071, 1075, 5, USPQ2d 1780, 1783 (Fed. Cir. 1988)). “Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.” *Ecolochem* at 24 (citing *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)). “When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.”

Ecolochem at 24 (citing In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1988), citing In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)).

Additionally, “defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness.” Ecolochem at 24 (citing Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 139 F.3d 877, 880, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998)).

For at least the foregoing reasons, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. §103 be withdrawn and this claim be allowed.

Claims 2, 3, 5-10, and 12 depend from claim 1. By virtue of this dependency, Applicant submits that claims 2, 3, 5-10, and 12 are allowable for at least the same reasons given above with respect to claim 1. In addition, Applicant submits that claims 2, 3, 5-10, and 12 are further distinguished over *McNelley*, *Takahashi*, and *Fullam* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 2, 3, 5-10, and 12 under 35 U.S.C. §103 be withdrawn, and these claims be allowed.

Claims 11 and 13 were rejected under 35 U.S.C. §103(a) as unpatentable over *McNelley*, *Takahashi*, and *Fullam* and further in view of *Ma*, U.S. Patent No. 5,880,783. Applicant respectfully traverses this rejection.

Claims 11 and 13 depend from claim 1. By virtue of this dependency, Applicant submits that claims 11 and 13 are allowable for at least the same reasons given above with respect to claim 1. In addition, Applicant submits that claims 11 and 13 are further distinguished over *McNelley*, *Takahashi*, *Fullam*, and *Ma* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 11 and 13 under 35 U.S.C. §103 be withdrawn, and these claims be allowed.

Claims 2 and 4 were rejected under 35 U.S.C. §103(a) as unpatentable over *McNelley*, *Takahashi*, and *Fullam* and further in view of *Yoshimura et al.*, U.S. Patent No. 5,667,733. Applicant respectfully traverses this rejection.

Claims 2 and 4 depend from claim 1. By virtue of this dependency, Applicant submits that claims 2 and 4 are allowable for at least the same reasons given above with respect to claim

1. In addition, Applicant submits that claims 2 and 4 are further distinguished over *McNelley*, *Takahashi*, *Fullam*, and *Yoshimura* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 2 and 4 under 35 U.S.C. §103 be withdrawn, and these claims be allowed.

**Conclusion**

Based on at least the foregoing amendments and remarks, Applicants submit that claims 1-13 are allowable, and this application is in condition for allowance. Accordingly, Applicants request favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicants request that the Examiner contact the undersigned attorney at the number listed below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2147 from which the undersigned is authorized to draw.

Dated:

Respectfully submitted,

By

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